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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,700	10/24/2003	Charles W. Propst JR.	APV31437A	6803

7590 10/05/2005

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EXAMINER

CORDRAY, DENNIS R

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 10/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/691,700

Applicant(s)

PROPOST ET AL.

Examiner

Dennis Cordray

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) 1-25 and 32-40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 26-31 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/25/2004.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

This is a first action on the merits of Application SN 10/687691,700.

Election/Restrictions

1. Applicant's election with traverse of the Invention of Group II, claims 26-31, in the reply filed on 11 August, 2005 is acknowledged. The traversal is on the ground(s) that the Inventions of both Group I and Group II can be searched without undue burden because the subject matter of the claims identified as Group II overlap significantly with the subject matter of Group I. This is not found persuasive because, as indicated on the original restriction requirement, the inventions are distinct and have acquired a separate status in the art as shown by their different classifications. Distinction was demonstrated by an example that the product can be used in a materially different process, such as the sizing of textiles. Other examples of materially different uses for the product are 1) in a cleaning process for electrophotographic apparatus and 2) in the manufacture of nonadhesive latex products. The necessity of searching several classes is burdensome.

The requirement is still deemed proper and is therefore made FINAL.

Claims 1-25 and 32-40 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 11 August, 2005.

In the interest of expediting prosecution of the application, the requirement for election of subspecies for the elected invention of Group II, claims 26-31, is withdrawn.

It is also noted that, in the applicant's amendment in response to the restriction requirement, the referenced application number at the top of the pages (09/718,380) is incorrect.

Information Disclosure Statement

The information disclosure statement filed 25 Feb, 2004 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because copies of documents from the 2002 TAPPI Fall Conference and Trade Fair and from the Kirk-Othmer Encyclopedia of Chemical Technology were not provided. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

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2. Claims 26, 27, 30 and 31 are rejected under 35 U.S.C. 102(a) as being anticipated by Kijlstra et al (CA 2354966) or Westman et al (WO 02/25013). Both documents are included with this action.

Kijlstra et al disclose a cationic composition (p 2, lines 18-19) comprising:

- A cationic polymer dispersion containing an acrylic acid ester (p 2, line 23),
- Wood fibers (p 12, lines 26-27),
- Alkyl ketene dimer (AKD) and/or alkyl succinic anhydride (ASA) (p 13, lines 20-27), and
- A starch (p 13, lines 27-31).

As defined in the instant disclosure, p 8, "acrylic acid containing" refers to "materials and compositions, such as polymers, oligomers, or monomers, comprising at least one acrylic or acrylic acid moiety." An acrylic acid ester thus fits within the definition. Kijlstra indicates that the AKD and/or ASA may be used to presize the base paper when the cationic polymer dispersion is used as a surface size. When the cationic polymer dispersion is added to the surface, the complete sizing composition on the surface comprises the claimed invention.

Westman et al discloses a polymer (p 3, lines 27-29), which can include

- Cationic starches (p 3, lines 33-34) and p 4, lines 14-16),
- Acrylate based polymers (p 4, lines 1-2),
- AKD and/or ASA (p 7, lines 24-26 and 32-33), and
- Wood fibers (p 8, lines 28-29).

Claim Rejections - 35 USC § 103

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kijlstra et al or Westman et al in view of Nigam (6171444) and further in view of Propst et al (5858173).

Kijlstra et al and Westman et al do not disclose the addition of a crosslinking agent to the composition.

Nigam discloses a sizing composition comprising a polyacid (abstract), which can be a polyacrylic acid (col 8, lines 54-57), a cationic starch (col 9, lines 12-13 and 36-41), and a crosslinking agent for intramolecular and/or intermolecular crosslinking of sizing agents (col 10, lines 52-56).

Propst claims an acrylic resin containing composition and a zinc oxide crosslinking agent in an amount sufficient to crosslink the acrylic resin (col 6, claim 1).

The art of Kijlstra et al, Westman et al, Nigam, Propst and the instant invention are related as pertaining to the science of papermaking compositions. It would have been obvious to one of ordinary skill in the art at the time of the invention to add a zinc oxide crosslinking agent to the composition of Kijlstra et al or Westman et al in view of Nigam and further in view of Propst to effect intramolecular and/or intermolecular crosslinking of the sizing agents.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure [Chen et al (6261679), Zhang et al (6348132)].

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Cordray whose telephone number is 571-272-8244. The examiner can normally be reached on M - F, 7:30 -4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


DRC


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